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THE NATIONAL COLLEGIATE TRACK COACHES ASSOCIATION

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AT MINNEAPOLIS, MINNESOTA

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ACKNOWLEDGEMENT

Our deep appreciation goes to the many friends of the National Collegiate Track Coaches Association who, by their wholehearted cooperation, have made it possible to report the proceedings of the 1948 Track Coaches Clinic.

To the University of Minnesota, host of the 1948 National Collegiate Track & Field Championships, the N.C.T.C.A. is indebted for unparalleled accommodations and services. The main ballroom of the Coffman Memorial Union, complete with adequate public address equipment and slide and motion picture projection services, was provided for the organization's two clinic meetings.

For its year around assistance, the Michigan State College, through Dr. John A. Hannah, President, and Ralph H. Young, Director of Athletics, has, as in the past, been extremely generous in its contribution to the work of the N.C.T.C.A.

As for individual contributors to this effort, it is most probable that any listing of names would be incomplete, regardless of the desire to overlook no one. The editor has no intention of using this as an excuse for not making an attempt to express his sincere appreciation to all friends who in any manner have been of assistance in this project. It is to them, and to all who are interested in better coaching methods, that this booklet is dedicated.

Lauren P. Brown,
Secretary-Treasurer N.C.T.C.A.
East Lansing, Michigan
March 1, 1949

NINETEENTH ANNUAL MEETING

of the

NATIONAL COLLEGIATE TRACK COACHES

ASSOCIATION

JUNE 17-18, 1948

The annual meeting of the National Collegiate Track Coaches Association was held at the University of Minnesota, Minneapolis, Minnesota, on June 17 and 18, 1948. Mr. Jim Kelly, University of Minnesota, President of the Association, presided.

PRESIDENT KELLY: We are going to start our clinic this morning with middle distance running and have asked Karl Schlademan (Michigan State) and Carl Olson (Pittsburgh) to talk for a while on the subject. Afterward you are privileged to ask them any questions that you want to on the middle distance runs. Karl Schlademan has been in track, as all of you know, for a good many years. He has had many fine middle distance and distance runners at both Washington State and at Michigan State. He will take over this discussion, followed by Carl Olson of Pittsburgh.

MIDDLE DISTANCE RUNS

KARL SCHLADEMAN: I'm sure that if you fellows will ask questions and make this a discussion, we will get a lot farther. I've been around these meetings for a number of years. I've heard the middle distances discussed by a lot of different people. This is strictly first person singular; I'll tell you what I think, and if you disagree with me, that's your privilege and I hope you talk out. In the first place, I think you need a definition of what the middle distance run is. If I were talking to a High School group, I would include the quarter and the half, but the quarter is not a middle distance run for the college or university class runners. For them it is a long sprint. I think, of late years, the mile has become very definitely the middle distance. Middle distance men may be almost any type of build, I believe. I've seen them well over six feet, quite heavy, and I have a pretty good one out here running now, little Jack Dianetti, about five feet seven and weighing about a hundred forty odd pounds. He is one of the better middle distance runners. So when a boy comes to me and says "I want to run the quarter or half mile" I never dispute him on account of the way he looks. They come in all types and kinds of packages. I believe nobody can run the quarter, the half, or the mile without a background of running. That's the one thing I think everybody should get in their heads. There is no royal road to track, especially in the middle distances. You have to run and run and when you're tired you have to run some more. Don't misunderstand me, though, you do not exhaust yourself. You save the race for the meet. I don't know how the rest of you work, but we very seldom, at Michigan State or at any of the other schools where I've worked, have run more than one tryout in the year at the even distance. Now, the distances that I use to work, (and I'll just go through the quarter and the half, for I think "Chick" Werner will be here in a little bit; he can talk about the mile), distances that I normally use in the quarter and the half are pace 220's and pace 352 yards. The first 220, of course, is important to get exactly right pace. I don't use the 330 much; I prefer the three fourths of the distance - the 352 - because then the boy has started into

his drive home and to drop the 88 yards off the end of the quarter takes the curse off. They can fool you a lot easier at 330 than they can at 352. I use a 300 yard run for a hard under distance and carrying speed work. Those are the distances that we use. As far as training schedules are concerned, I think nearly everyone knows what they are. Don't do any hard work after Wednesday. Monday is generally taken to be over distance day. Tuesday and Wednesday, work days: pace and speed. Thursday is play day and Friday, rest. And now so far as timing the boys is concerned, I've had some fairly good boys; Lee Orr, you may remember when he ran 46.8 over at Princeton, his first 220 was 22.2. I think you might ask Carl Olson about "Long John" Woodruff, in both the quarter and the half, and you will get some interesting comparisons. When you go out to the 880, well, it's just becoming a long quarter mile, only pace is much more important. Last year at Salt Lake City, when Clifford and Dianetti ran that 1:50.8 with Clifford in first place by a foot, Jack took the lead at the end of the first quarter in 53.8 and the final time was 1:50.8. I use a lot of 220's for pace for the 880. Also, the quarter and an occasional 660. We've done a thing on our track that I find in early season training helps a lot. We have posts up all around the track so we can check each 110 yards. I've found it helps a great deal. The boy starts around the track and I get on top of the Judge's stand with a split second watch. As he passes this little post and goes on down the line, I can either signal him to come on back over here if he's not right or give him the OK sign which means go ahead. If he comes back over, we look at the watch. If he got it wrong for the first 110, he tries it again at a 110 until he gets it regulated. Then we go out to the 220. Then we start running quarters later. As I work with these men more and more and grow older in the profession, I'm more and more inclined to think that even, rhythmic running is the thing that gets you time. I can remember the time a good many years ago when they wanted a lot more deviation between the first half, that is the first 440 of an 880, than they do now. I like to see them run even. Of course, the longer the race, the evenner the pace. I think the 880 is an evenner race than the 440. I believe that men must start coming home, especially in the 440, before they get tired enough that it's going to be a struggle. And the struggle is to hold form rather than to sprint, if he is a real middle distance man. I think it would be interesting if Carl Olson told you how "Long John" Woodruff ran and what his deviations in time were. Then I'll let you start asking questions.

CARL OLSON: John Woodruff would make anyone a great coach. This boy was capable of running the 100 in 9.8. At the Penn Relays, he ran the 220 in the half mile relay in 20.6 seconds. In Oslo in 1936 he ran 400 meters in 46.4 seconds. He took the half under 1 min. 48 sec. down in Dallas, Texas, but they discovered that the track was a little short; he thereby lost the world's record in this event. He ran a mile in 4:12.8. He also was a member of the cross country team, where he ran the distance of five miles with ease. A man who can do all those things must be endowed by nature to be a real runner. He doesn't require a coach for instruction as much as he requires somebody to guide him and watch his physical condition. One of the favorite training distances for Johnny was the three quarter mile. Not one week went by but he wanted to run a three quarters. He would usually run this in about 3:07 or 3:08. He never went below that. He'd usually be about fifty two second in a fast 880. He never went out to set any kind of a record. I always believed it to be silly to send a man all out. If he gets into competition, nine times out of ten if he's got the stuff, he'll come through and break the record. I ran Johnny a lot in 660's, but his main training distance was three fourths of a mile.

THE DISCUS THROW

PRES. KELLY: Any questions now that anyone would like to ask either one of these gentlemen on the middle distance runs? (Pause) There are a whole lot of coaches who are on their way; probably stopped for workouts and may be having a little trouble trying to find this place. I don't want Ken Doherty to show his slides of Fonville until some of these people who have asked to see them can get here, I might fill in a little on the discus. You fellows know the discus is one of my pets. I've been asked two or three times to write something about it, but I've been a little reluctant about it because maybe it's a little different procedure than some of you use. However, I believe pretty firmly in what we do. I have no quarrel with anyone else who wants to coach the event differently, but I do insist that our discus throwers throw the way we want them to. Now, I think one of the reasons that they are fairly consistent in their throwing is the fact that in getting around the circle, we do most of the preliminary work from the hips down. We keep our shoulders out of the turn until we have gotten around to the last movement. It gives us a lot more whip and I think, consequently, they are just a little more consistent than some of the discus throwers who do get their shoulders into it a little bit early. If any of you are interested, I'd be very glad to show you the steps and the way that we do it and why.

Now, in the back of the ring, we face out in this general direction. First thing when we start them in is to get them as relaxed as possible. In other words, they stand back here and this foot (demonstrating) is right at the back of the ring. They stand up there with that discus and step forward and back, trying to see that they do not bend over because the moment that they do they have lost the power of everything but their arms. Then they pivot off the left foot, stepping clear over here with that right foot and by that time they are turned enough so their back is more or less to us. Then it's a hop across with the right foot in this position (demonstrating). In fact, I'm leaning a little more forward than I want the boys to do. They are here with the arm dragging but pretty relaxed and the coach must concentrate a lot on seeing that they are relaxed. Now, what I'm getting at is that a lot of boys will start in and they're all tight in that shoulder and go right around when they throw, straight across, and the upshot is, they are too tied up. That is the reason we concentrate on that step, coming in to here (demonstrating) with a complete hop around, trying to keep the weight here (demonstrating) and then they must go forward over on to this foot and following on around.

Now, in the case of Gordien, he gets to stopping half the time and we get, in quite a little work in the middle of the week. At our outdoor conference meet at Madison, on the Friday he had just two throws including all his practice throws, where he went right on over to this foot and followed through. He would come up before that on these throws and he'd come through here and then he'd sort of stop and then go through. Those throws were landing out there about 160 to 163 feet. Good throws, you may say, but not good for the boy we know can do a lot better. Then, on Saturday, in practice he'd had one throw in which he came through and followed through nicely but he let the discus go a little bit too low although generally his tendency is to throw too high. On this throw he got off a little too low, but it was a great throw. Then he fouled his first two final throws in which he threw one away high and the other he over powered--that is, where he held it too hard and controlled it too long. I was down on the edge of the track and three or four of the boys were there and they wondered if he was going to get off a good throw. I told them that the moment he came across on his right foot I could tell whether or not it was a good throw. On his last throw he came across again, his pivot was very nice, he was very relaxed on it and came over on this foot, he followed on through and he sent the discus out on about this plane. It was just what we wanted him to do and the throw was about 178 feet, 11 inches.

Now, this is a must with them and it has been every time they've gotten a good throw. Every time they've had a throw go over 170 feet, they have followed through. That is, I mean they have come upon to this foot, let that discus go, and come right down again. Now, we insist that they throw through the shoulders. They'll get the habit of coming up too much. They go pretty high and get pretty fair throws, but not their best throws. The things that we concentrate on are (1) being relaxed back here; (2) stepping off with the left foot; (3) then hopping around on the right foot. That's the principal of it. Every once in a while they get the foot too far back. Get it here and go right on over with that throw--right on in here with that throw, up through the shoulder, right over onto the right foot and down.

Fitch, leans a little bit more, his steps are just the same, but he comes in with that shoulder a little bit faster and probably gets around just a little bit faster. Last year he'd had very little competition when he came down to the AAU meet and Gordien beat him which was the only time that he was beaten in four years. It took about a couple weeks--three weeks after that--for him to begin to get back in relaxed form. Then he had any number of throws over 179 feet. The best throw that he had out of the ring was in Athens. He threw 183 feet 6 inches. But those people, of course, were very much interested in him and they had a tremendous crowd there. When they saw his throw start out and saw it was a great throw, they started screaming, and Bob, instead of going right on through, started to look up to see the thing, and stepped a little step back on to the ring and lost the throw. If anyone has any questions and think we have anything to offer along that line, I'd be very glad to try and answer anything that you may like to ask.

CLYDE LITTLEFIELD (Texas): How much work do you do in a week?

PRES. KELLY: They take a lot early. If they'll take a little rest the last two days before the meet, they can do a lot of throwing. The hardest thing to get them to do is to keep them from thinking that every throw has to be a championship throw and if they come out there and don't throw a 175 to start with, they have to pour it on. You can overcome that but a lot of throwing does help with the rhythm; but you're going to have to be around watching them.

FLINT HANNER (Fresno State): What's the position of the left arm?

PRES. KELLY: Well, you don't pay too much attention to it. Most of our men carry that left arm about in here (demonstrating). Of course, Gordien is about six feet, and right now he weighs, I think, 206 pounds and he's built a little more compact and will get around a little bit faster and better than Thompson, who weighs about 211 right now and is six foot three. He has a little bit different action in the ring, but the general steps and follow through are just the same.

KARL SCHLADEMAN: Approximately how many practice throws will a boy throw in a week?

PRES. KELLY: In a week? Oh--they'll throw as many as 30 or 40 a night. Thompson, if you don't run him out of there, will throw a hundred a night. Now I think Ken Doherty has found out, like other people, that the boy who is a real good shot putter and works a lot with the shot will affect his discus throwing. Fitch was never allowed to throw the shot very much and very, very little when he was competing outdoors. Gordien sort of likes to work with the shot. He works with it too much. Since Wasser of Illinois has been up here this past week, he's been fooling around with the shot a lot. May cut ten feet off his discus throw before he gets it back. He does adapt himself to the two better than any other boy that I've had.

Machine Gun Camera Sequence of Bob Fitch, Minnesota '47.



Illustration 1

The thrower starts his preliminary back swing, completely relaxed.



Illustration 2

His back to the direction of the throw. Note the body has started its rotation to the left before the arm reaches the back swing.



Illustration 3

The discus has now completed its back swing.



Illustration 4

As the arm starts its forward movement the left foot is off the ground.



Illustration 5

The throwing arm is straight back at shoulder height with the opposite hand close to the chest.



Illustration 6

The powerful drive off the left foot is adding power to the throw.



Illustration 7

The discus is carried far back during the pivot.



Illustration 8

Fitch raises his right knee more than most throwers.



Illustration 9

The right leg is flexed as it starts to rise.



Illustration 10

At the beginning of the throw there is a good breaking of the hips as they lead the body.



Illustration 11

At the end of the pivot the left leg is parallel to the ground and the left arm completely relaxed.



Illustration 12

Note the complete relaxation here.



Illustration 13

There is no evidence of falling away to the left, which fault is usually caused by the thrower not getting the hip into the throw. Note the right arm breaking across the body.



Illustration 14

At the time of release, the discus is parallel to the ground.



Illustration 15

Both feet are off the ground after the release.

Form in the Discus as Shown by Fortune Gordien, University of Minnesota '48.



Editor's Note

Due to an error in assembly, the sheet bearing the final nine pictures of the Gordien discus sequence was inserted backward. Discovery of this error was made too late to permit correction. The numbers on the pictures themselves show the correct sequence.



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ED WEIR (Nebraska): How did Gordien like to throw as far as the wind was concerned?

PRES. KELLY: Doesn't make too much difference with him. Fitch always liked a little cross wind, but it doesn't make too much difference to Gordien. Thompson likes a cross wind. They tell me that this boy Frank of Yale, who is coming along very well, likes to throw into the wind. I'm very anxious to see this boy Frank throw. He's thrown, I guess, 171 feet. I know this boy, in fact, he was with us out at Salt Lake last year, and he worked out with us some. He's a very intelligent boy. He was a freshman then. He's making remarkable progress. This young fellow (Frank Ryan, Assistant Coach at Yale) who just came up here was out a few years back here for a couple of National Collegiate meets, putting the shot. You see how big he is. Until Fonville came along I thought he was the stylist of all shot putters. I would like to have him tell you a little bit about how Frank is coming and what type of throw he is using and if he wants to discourse a little bit on the shot, that'll be fine too, because with Ken Doherty coming along with his stuff on Fonville, I think it will be very appropriate. Frank Ryan, Assistant Coach at Yale. He is the field coach.

FRANK RYAN: It seems that I came over here just in time to act as a filler. As for Frank's throwing, I think it very similar to Gordien's. We try to operate on about the same principles as does Gordien.

Frank and Gordien assume almost identical left leg position at the start of the throw. The left leg is close to the rear of the ring and the back is toward the intended line of throw. I think Phil Fox introduced this method of starting. When the method first appeared it seemed to be a real solution to some of the difficult problems involved in discus throwing. Particularly, it seemed to solve the foul problem because it permits more room for forward drive. A man employing this "back" position of the left foot has, as he hops forward from the left foot, considerably more space in the circle than when using the so-called orthodox start. However, my own experience seems to indicate that this method is not a panacea for the fouling ills of most men.

A typical case where I have tried applying the "back" position of the left leg as a means of checking fouling would be somewhat as follows. A man using the orthodox start would have a tendency to foul most of his throws by a matter of inches. Upon moving his left leg to this new position he would throw just as well and now have plenty of room in the circle. But, after a few more throws, his entire form would go sour. Because this pattern repeated itself in so many cases and because I found that the experience of other coaches was similar, I gave up teaching this new style. However, Vic Frank wanted to try it and I taught it to him--with some reluctance, I must confess. He learned it readily and continues to use it effectively. Vic happens to be a highly coordinated boy and is possessed of a superb sense of balance. That might furnish a clue to the application of this style. Perhaps its use should be reserved for the highly coordinated man. Possibly only men with qualifications similar to those of Gordien and Frank can successfully use this style.

I think Frank and Gordien will look very similar tomorrow except for one possible point of emphasis. We don't emphasize what appears to me to be a Minnesota quick reverse. I may misinterpret Jim Kelly's remarks, but he seems to stress speed in leaving the left foot upon delivery. It strikes me that in this procedure there would be some danger of losing left leg drive. Have you ever run into this difficulty, Jim? You seem to be in a hurry to get off the left foot to go into your reverse. Isn't that true?

PRES. KELLY: Yes.

MR. RYAN: Do you ever find that you lose the left leg drive, doing that?

PRES. KELLY: No, you mean originally or on the back end of the ring?

MR. RYAN: On the delivery.

PRES. KELLY: No, they get into two motions

MR. RYAN: Two motions? What does the second one look like?

PRES. KELLY: Well, I mean where he comes around here and then they slow down then it's almost the same thing.

MR. RYAN: I possibly misinterpreted you when I was sitting down there. It seems to me that you want them to get off that left foot in a hurry and go right into a reverse.

PRES. KELLY: Yes, that's right.

MR. RYAN: I think that's the only possible point on which our procedure differs from yours. We like to have them to hang on the left foot until by the power of their spin they are forced onto the right foot rather than try to get there.

PRES. KELLY: Well, that, I think we agree on. But you don't have them delay from the time they get into that, from the time the boy has landed here and come onto this foot--you don't have them delay there, do you?

MR. RYAN: No, certainly not. We got the impression from the floor that you would have them get off that left foot in a hurry as they deliver the discus and to go the right and make a reverse.

PRES. KELLY: Well, at the moment that he starts the throw through, I want him to come right on up without any hesitation getting off that right foot.

VOICE: Is he off his right foot before the discus leaves his hand?

PRES. KELLY: By this, you mean, is he off the right foot?

VOICE: That's right.

PRES. KELLY: He doesn't go off the right foot. That still stays on.

MR. RYAN: I think you mean the right foot off from its back position?

PRES. KELLY: Before the discus leaves the hand? Yes, that's right. The foot is almost on the ground by the time the discus leaves the hand.

MR. RYAN: Jim, do you think you're taking a chance if you try to teach that form to boys who are not too highly coordinated? Do you find that it works just as well with the poorly coordinated fellow?

PRES. KELLY: It takes a lot of work, but when they get it they increase their distance considerably.

MR. RYAN: Do you find, too, that they can put their left foot to the rear of the circle and turn their back on the intended line of flight?

PRES. KELLY: We have one now who is a good physical specimen, who started out this year. He is a little erratic, but he went to 154 feet. He's had a couple of bad days since then. The four boys that we have tried to work on with this form were Kulbitsky, who had one season, Fitch, Gordien, and Thompson. I'll say this about Thompson. Probably some of you people know about him. He wasn't the same as most high school boys. He's from a high school here in the city and his coach is very enthusiastic about track. We were talking one day and he said, "I don't have too much. I have a pretty fair team, but I don't have any weight men". I asked, "Don't you have any big boys who want to throw?" and he said "yes, I've got one. He wants to be a weight man". I said "Send him on over and let him work with us." That was during the war. We didn't have anybody around. So he came over at the beginning of his Junior year, and that boy appeared every day all through his Junior year, and through his Senior year and worked out with us over there and then he went into the service. He was a middle of the year graduate but he went in in June and, of course, he was home every once in a while and he went around to meets and he still worked out a little bit. Then he came back out of the service and had to finish his high school so he went back to high school and still came over and worked all the time. He worked only with the regular discus, you know. Then, of course, this year we had him as a Freshman so we've had him around as much as any of the discus throwers we've had. So it isn't as if we had just picked him up. I agree with Ryan; it does take a lot of work to get them to throw the way we would like to have them throw. And the more intelligent the boy is, the more even keel he can stay on, the easier it is for him.

MR. RYAN: Would you start them on the old orthodox form?

PRES. KELLY: No.

MR. RYAN: Oh, you start them on present form.

PRES. KELLY: Yes, because you'd just have to undo it and start over again.

MR. RYAN: We have two other men on our squad who have thrown better than 150 feet this year and they just can't learn that form, at least I can't teach it to them. As I have said, I suspect that this form should be reserved for the highly coordinated man.

PRES. KELLY: There may be quite a lot of truth to it, but I can tell you very definitely by next year whether or not it's worth the time or the effort. We shall see if this big boy that we are trying it with--as I say, he has gotten up to 154 feet in competition--can, by next year, become a consistent thrower. He had the least coordination of any fellow, handling his legs and arms. He has as good physique as any we have ever had. He lacked coordination so much that in football and basketball they had to drop him, practically. And if he becomes a consistent discus thrower next year, why then I'll say it's very much worth while to take anybody that you have and struggle with him until you find out whether or not he has anything.

MR. RYAN: How far can Fitch or Gordien do without a turn?

PRES. KELLY: Oh, last year, down at the Kansas relays in the mud when they couldn't turn, I think we had Gordien stand in there and he threw 151 or 152, wasn't it, Ward, without a turn? Fitch, of course, was gone in the service. Before that his best competitive throw--and Bob was pretty young when he was in school, despite his size--his best competitive throw was 166 feet. He was undefeated, however, in his Senior year and he met Harris and Fox and all the rest of them. Never had a day to his liking to throw--but when he came back from service they let him compete in football in this conference. But at the end of the football season the directors and the football coaches had by that time had their cake so they decided to make a good

impression. They wouldn't let the boys compete any more in any other sport that year. I've told them about it a good many times both publicly and privately. Anyway, they barred the boys from competing in track or baseball. So he had only two meets in which he could throw. One was this Northwest open meet we had here the other day and he threw in that meet, 180 feet two inches. Then he went down to San Antonio, the National AAU meet and Ed and Clyde and Ward, who were out there, know what it was like. It was a new place and there was dust that deep (demonstrates) in the ring and he still threw 179 feet. Then we were to go overseas with him and got down to New York and were still practicing and he was in perfect form. Out at Randall's Island, by actual measurement, he threw 194 feet out of the ring. If he hadn't been grounded* and had gotten over and if he could have finished his competition that year and had the same number of meets we had this year, he would have gotten that worlds record up around 190 feet. But then he was gone last year and didn't get much throwing and he never did get back in form. Now is there anyone here who wants to ask Ryan any more questions?

MR. RYAN: I'd like to ask if anybody has any real information on what the wind does to a discus. I don't know of any study. Ken, do you know of any?

MR. KENNETH DOHERTY: (Michigan) No authoritative study, but the Michigan engineering professors doing wind tunnel experiments are of the opinion that a properly scaled discus thrown into a steady head wind will be definitely assisted by it.

MR. RYAN: I feel sure that a headwind is a definite aid if the discus is delivered properly. However, it has been my observation that a headwind can be a handicap if the discus tends to wobble, if its plane is not nearly parallel to the ground, or if it is thrown too high. Certainly, the wind's effect must vary from man to man depending upon the particular delivery of the discus. Frank, for example, is definitely better while throwing into the wind. On the other hand, Fuchs, who has been our second discus thrower at 155 feet, does better with the wind on his back. Frank throws a smooth, fairly low discus, while that of Fuchs is high and ragged. I feel that their differences in delivery account for the differential effect of the wind on their throws. Bowers, our third discus thrower who has also bettered 150 feet, has a smooth delivery and benefits by a headwind.

In the Heptagonal Games this year we had to make a difficult decision as to who our second discus thrower would be. Heptagonal rules permit only two entries in an event. We felt sure that Frank would win the event, but we had to choose between Bowers and Fuchs for our second entry. Bowers had beaten Fuchs on the two previous Saturdays. However, on both these days the throwing had been into the wind. We had both men warm up, delaying the decision as long as possible. A few minutes before competition was to begin the wind was definitely on their backs, so we nominated Fuchs who finished second only a few feet behind Frank. I think the wind's effect on the discus is a greater factor than most of us realize.

PRES. KELLY: I think, very definitely, it is. I think Frank has hit the nail on the head. If the boy does throw smoothly, he can get something out of the wind and if he doesn't, he won't. I haven't found that among the discus throwers the good ones help each other too much. Have you?

MR. RYAN: No. I haven't found that good athletes help each other much at all.

PRES. KELLY: It's not that they don't want to. But I mean it isn't until they have been through school a year. Maybe they've been out coaching a little bit that they begin to realize just what they're doing. They're not sure what they do.

*Editor's Note: Fitch was prevented from going to Europe by last minute flight restrictions.

MR. RYAN: I think they help each other a good deal in the pole vault. But I think that if they're going to be really beneficial to you, why they ought to be specifically directed. There are so many possible points of observation in the vault that it's difficult for one man to see them all. Assign one man to the take off, one man to watch the shift, another man to watch the pull up and you have about three or four pairs of eyes working for you at particular points. In this way they can be very helpful. But if you just let them act on their own and leave them to their own devices, why I don't think they'll be too useful; they might even be harmful. We've had that happen.

PRES. KELLY: It has been. I've had to separate them to keep them from getting each other mixed up. Well, I guess Ryan knows that his boy Frank worked out with us several times at Salt Lake City and if he's got any new ideas with his boy that we don't have, (he tells me he plans to stay here and visit a while) why I'm going to steal them from him.

MR. RYAN: We came here with the specific purpose of stealing all we could from Minnesota. (laughter)

PRES. KELLY: Anyone else have any other questions they want to ask?

GEORGE HANEY: (Ohio State): If you have any cross winds, would you rather have them throw to the right or to the left?

PRES. KELLY: I think to the right as you face the direction of the throw. Now let's take about a ten minute stretch and then have Ken set up here for his slides.

INTERMISSION - while Ken Doherty (Michigan) prepared to show slides of Fonville, Michigan Shot Putter.

THE SHOT PUT

KEN DOHERTY: Just a few comments although I think the slides will talk for themselves. First, that in my opinion, Fonville has not discovered anything new, anything different from what you men--all of us--have been teaching for, well, as I recall it, twenty years or more. It is possible that he places a little different emphasis on certain phases of the form than is usually the case.

During the last ten years at Michigan we have been emphasizing three particular points in our own coaching. The first is that, assuming good form, and good balance, the more speed you can get across the circle and on into your put, the farther that shot is likely to go. We have assumed that we ought to use the entire seven feet of the circle in acquiring this speed rather than hopping to the middle of the circle and then trying to get speed in the last half of the circle. Now I realize that this emphasis is not new, but there was a tendency in the early days of shot put coaching to think in terms of power, to hop with good balance to the center of the circle and perhaps to take a little hitch with the shoulder in order to make sure you got even more power and then go on into your put. Jim Kelly mentioned that Frank Ryan was outstanding in his form in the shot and I think that's correct. As I recall, however, Frank lost speed in the center of the circle while his shoulder came way around--more than most men. I can still see that straight left arm which came all the way back.

His put came after this shoulder hitch. Whereas, watching Fonville in the next couple of days, and perhaps these slides will show it to some extent, you'll find that the momentum of the shot begins at the back of the circle and goes right on through.

I don't as yet have any means of determining the extent to which that shot actually maintains and gains momentum as it moves across the circle. We're planning to take some strobolight pictures and try to actually determine the truth of this statement. It's possible that it gains momentum all the way, but I doubt it. I think it picks up momentum, loses a little, and then picks up again. But certainly I'm convinced that it has more momentum than that of any previous shot putter.

The other general principle that we have followed is that you can apply your power and your speed in the shot if you keep power and speed along a single plane. Start all of your movements in the direction that the shot is going to go and maintain all of your movements in that direction insofar as they are consistent with relaxation and good balance. In most cases, I think you'll find that if it is the right direction it is consistent with balance and relaxation. In the lifting of the first leg, the left leg, for example, it has never made sense to us that it should be lifted in any direction except straight across the circle in the direction the shot is going to go, in the direction, more important than that, that the glide is going to go. It's a little awkward to lift the foot straight out as compared to lifting it up in front of you, but once they're used to it, I think it comes more naturally and easily. It has never made sense to us that you should swing the shoulder back or pull the head back or pull the eyes away back so that the general line of the body is very much out of line of the direction of the put. You'll find that Fonville stands in line with his put at the back of the circle, and with just a little hitch of the shoulder, maintains that even position all the way through and on into the put. He's had some difficulty with certain phases. His left foot does go into the bucket, for example. The left foot, on his better puts, lands so that the toe is either even with the right heel, the back of the right heel, or even three inches back of that point. All of his puts are that way. We've coached him consistently for three years, trying to get the left toe about six inches back of the line of the right toe; an open stance, so to speak. But he has consistently ignored whatever we have tried to coach and the left foot always drops back a little more. In my thinking, this is due in part to the fact that he has such extreme speed in his putting action. The more the left foot lands toward the center line of the circle, perhaps the more powerful position you may have, but probably the slower you are--as is true in the case of the discus--the slower you are in coming on into your put.

The third principle is that the speed and momentum you gather in going across the circle must not be lost, but must be combined with the power and speed of the putting action itself. This implies many things. One example and then I'll show the slides. In order to clarify my own thinking, I sometimes compare the shot with the Finnish style of javelin throwing. In the Finnish style, you run very rapidly but suddenly stop your forward momentum within as short a distance as possible forcing the upper part of the body to go right on through into the throw. Your left heel drives hard to make a very definite impression in the ground. To some extent--the same idea applies in the shot. If you go across with speed, your left leg moves hard against the toe board. You remember twenty years ago in our books we were teaching men to place the left foot eight or ten inches back away from the toe board in order that we could get a proper follow through? Practically all the shot putters in the last ten years have been hitting hard against that toe board and have used that left leg. I remember arguing with Dink Templeton on this point. I used the word "fulcrum"; the left leg is a fulcrum against which you drive with your right leg and your right hip and your right shoulders--in somewhat similar fashion to what you do in the Finnish style of javelin throwing. However, the similarity is only partially true. If it were entirely true, I think that your left leg would straighten at the knee very

definitely, in the way that Blozis used to straighten his. You remember as he was driving up into the put his left knee was almost stiff. Fonville's does not straighten out until after the shot has left his hand. Fonville's left knee is bent all the way through. Yet I think very definitely that he drives with that left leg in addition to using it as a fulcrum.

One other point that is well illustrated with these pictures is that he hurries his action, I think, beyond what other great putters have done. You will see that the right foot has left the ground before the shot leaves his hand. This surprised me when I saw it for I always thought Fonville delayed his right hip action as well as anyone. I thought that foot ought to still be on the ground while he is driving hard with his fingers and wrist. But the action of the right foot, as far as the right side of his body is concerned, is already over before the shot leaves his hand. Now, unless there is some question, I'll go ahead with the slides.

(Slide) Now I don't think you'll find anything different in the position that's shown here. He holds his shot fairly high in his fingers. He does not have strong fingers or wrist at all. In fact, my guess is that tests on various dynamometers would show that he would not be a particularly strong individual. But he is very fast, he can run a hundred in ten seconds or better. He can high jump over six feet and broad jump over 24 feet. Other than the fact that he is standing erect, that his eyes are horizontal, and that he is quite relaxed, I don't think you'll see much difference in this slide from what you've seen for years.

(Slide) Now the same thing is true in this slide. In my opinion, this is a very important picture. I've been very much interested in the conversation in regard to the discus because, in this respect, I think Fonville's form in the shot and the Minnesota form, if we can call it that, in the discus, are very similar. Again it's not new, but I think he emphasizes this point a little more than what has been done in the past. You will notice that his shoulder stays back, in the way that we have always wanted it to stay, but that quite definitely his weight, at least in terms of his hips, is shifting across the circle.

(Slide) And it is done the same in this case. The hop, does not occur when his body is right above his foot. He not only gets speed in the glide through the power of the right leg and the swing of the left, but also by shifting his weight across the circle. Then, to prevent himself from falling, so to speak, he has to hop with the right leg and shift the left leg across. In our coaching we do not talk in terms of throwing the left leg across the circle. I've thought of the left leg for balance and for power after he gets across, but not primarily in terms of throwing it across for speed. The speed of getting across comes from the shift of the weight in the middle part of the body and from the hop from the right foot.

(Slide) Pete Dendrinos, our second shot-putter, did 50 feet, eight inches and you will see that he has followed approximately the same form that Fonville has. Although, if you'll watch, you will notice that it's a pretty flat footed and slow position as compared with what Charlie picks up. The difference is largely one of speed.

(Slide) Here Fonville is coming across the circle and you can see that it's a straight and low hop.

(Slide) The word "hop" is a misnomer; "shift" or "glide" is better. That shows again the shift in his weight. He is a third of the way across and yet he hasn't really started to hop with that right foot yet. If you were to cut that off at the hips I think you would find that his upper body position is almost identical with what it was when he was standing at the back of the circle.

(Slide) That's Dendrin's hopping across. In our opinion, there is a definite difference here in that Dendrin's left hip, you'll notice, is quite high, which means that he is hopping up. He is taking a definite hop whereas in the case of Fonville in a similar picture you will see that he left hip is on a horizontal with the right and it's a glide across the circle rather than a hop.

(Slide) That's Fonville again. Notice how low he is at this point. I believe Fonville settled lower during the glide than any previous putter. His head actually dropped fifteen inches.

VOICE: How far does he go off the ground with the right foot?

MR. DOHERTY: Too far, that's the one thing that we have emphasized for three years and yet have been able to accomplish almost nothing with. In my opinion, that left foot ought to stay as close to the ground at all times, as possible in order that there be no delay, none whatsoever, in its hitting the front toe board and going right on up into the put.

VOICE: I meant the right foot, Ken.

MR. DOHERTY: How far does he come off the ground?

VOICE: How far is he off right there?

MR. DOHERTY: He is not off at all. His spikes drag out and hardly clear the ground. It is not an upward hop at all.

VOICE: Is that as far as his hop with his right foot takes him?

MR. DOHERTY: No, his hop goes 38 inches. It is very definitely not a hop at all; it's a glide. After he has put the shot across the circle 10 times, he is two inches deep in the ground with his right foot. We keep changing the circle constantly because of the hole that he gets there.

(Slide) Now, again, I think that left foot is much too high. We keep coaching, and trying to hold the left foot down and throwing the left foot exactly in the direction that it ought to go and that is right toward the toe board. (Slide)

VOICE: He bent his knee. His hips are relatively straight, though. That left leg is bent a little bit.

MR. DOHERTY: That's correct. On his best put it's our opinion (we don't know this because we just haven't happened to take pictures when he was having an excellent put) that that left leg would be straighter and the left foot would be lower to the ground.

(Slide) See, it isn't down yet. My feeling is that it ought to be already on the ground.

(Slide) Again, you cut that off at the hips and I don't think you would find his shoulder in much different position from what it was at the beginning, or the position of his eyes, or even of his left hand.

VOICE: Doesn't that shot look farther back of the right foot than it was to start with?

MR. DOHERTY: I don't believe it is. I have a few pictures taken from behind him which indicated just about the same. A little farther back, a little hitch with the shoulder, but not much. The hitch certainly doesn't take any time for it occurs while he is coming across rather than after he lands. His right leg, you will notice, is bent at all times.

(Slide) That's a remarkable picture, though it doesn't show up very well here. His left foot is in better position against the board. Now, I think it gives you (if you could see it more closely) an impression of speed as compared with flat footedness.

(Slide) There is one, you can see the shot. Hasn't changed very much. He's dropped down, of course, the same way that he has dropped down with his right leg.

(Slide) Whatever it's worth, notice his eyes in this picture. In my opinion, the eyes are the first thing to move when you are working for speed. The eyes will go in the direction that you are going to go before any part of the body will go. If you start coaching it, then the body gets to moving too fast--faster than what you want it. Just because he is that kind of an athlete, he picked this up entirely by himself; we never said a word. And even though he hasn't changed the position of his body at all, his eyes are already anticipating that forward movement. I think that if you were to take a picture of most of the shot-putters in the country at the present time when in this same position, you would find their eyes directing well back, almost in the line of the right foot. Let me state that again. I think it's a tendency for shot-putters to delay the action of their eyes far beyond what is necessary.

(Slide) In order to accomplish the same result with Pete Dendrinos, we had him look toward where the shot lands when he stood in the back of the circle, and all the way across. He always hitched too much with his right shoulder as he hit the center, and consequently had to stop in the center and then make his put. In order to speed him up, we had him look straight down the center line before he ever left the back of the circle and it did help him a great deal. Now we don't recommend it generally, but in order to overcome his fault, it seemed to be helpful. He is right up in front of the circle there just beginning his drive.

(Slide) Notice the position of the shot and position of the right foot--certainly he is driving against the left leg, although it's definitely bent.

(Slide) That shot, I think, is not coming out as straight as it ought to. That depends, of course, upon the position of your camera and all the rest. He has a tendency to fall into the shot--that is to put it out to the right of center rather than straight out.

(Slide) See, the right foot is already off the ground, which doesn't make sense to us, but there it is.

VOICE: Hasn't power, though, come up through his legs and is already up into his hips? As far as that leg is concerned, like cracking a whip?

MR. DOHERTY: Yet, his right leg is still bent.

VOICE: How many pictures like that do you have? Is that the only one? Maybe another may show better.

MR. DOHERTY: That's the only one I have with me.

Rapid Fire Camera Sequence of Charles Fonville, Michigan '49.



Illustration 1

Shows excellent initial position at start of leg swing. Note that the weight is all on the rear leg, the right shoulder is dropped, the elbow out and the shot is held close to the neck.



Illustration 2

Shows the position during the hop. The thigh is stretched, the elbow is in line with the shoulders and the feet do not land together, making the rock possible.



Illustration 3

Excellent putting stance. Note position of feet, right knee and the body balance before the leg rock and body whip is made.



Illustration 4

The arm thrust has been delayed until the body twist is nearly completed. Note the pull on the left side and leg as well as the right leg drive.



Illustration 5

The trunk whip and body twist have been completed and the arm thrust has been started. The left leg is straightened and still anchored with the body well over it.



Illustration 6

The follow through. The feet have not reversed their position and are still on the ground. Note the extension of the right shoulder, the full arm thrust and the wrist and finger flip.

PRES. KELLY: Ken, I think that when we get out there, if somebody wants to take a look at these shot putters, you'll find that at least nine out of ten have that right foot off the ground when that shot is delivered.

VOICE: How much off?

PRES. KELLY: I don't know the answer.

MR. DOHERTY: (another slide) Now see again; it's still on the ground. It may be that on his best puts the right leg delays a little longer. I don't know the answer.

VOICE: Have these pictures been taken this year?

MR. DOHERTY: Yes, all these indoor pictures were taken in late February or early March. The outdoor pictures were taken within the last month.

VOICE: Did you practice him standing in front of the ring with his right foot on the ground and putting much?

MR. DOHERTY: With his right foot on the ground? Well, we put from the stand without a reverse, a great deal before getting into the circle and even more than that after we are in the circle, in order to emphasize the delayed right hip. As far as I'm concerned, Dink Templeton emphasized that point (maybe it was somebody else, but in my book it was Dink). And we've always coached consistently that delayed right hip. Although, as I say, in the interest of high speed, that hip may come through faster than what Dink used to think it did.

(Slide) He has a tendency not to follow through on ordinary puts, I would say-- of, unless he is doing 53 feet, he doesn't follow through the way he should. On the other hand, I think he certainly follows through better than Blozis. I'm not well acquainted with Torrance's picture. I haven't seen very many, but Torrance, I think, followed out better than Blozis did. But on his best puts (and you have seen at least one picture which illustrates it very well), Fonville does follow out excellently in the direction of the put--all the way.

(Slide) I think the line of his body ought to be much more in the direction of his put there than what it is.

VOICE: What is your usual day's workout?

MR. DOHERTY: The way we work is this. He warms up putting from a stand without a reverse. Then he gets in the circle and does as much putting (this is in contrast to some of the things we used to teach and some that I just heard here today) as he can in which the shot lands out there just as far as possible, as long as his attention is on form. He can put 51 feet without concentrating very much on distance at all. And I would far rather that he take 10 puts at 51 or 52 feet in which he is thinking of detail, but also thinking of a distance, than 20 puts where it lands 45 feet in which he is concentrating on detail only. Proper form includes speed across the circle and throughout the put. After he has taken possibly 20 puts of that kind, then we can begin to slow down and pay a little closer attention to the left foot and other things. After we have worked on that, we go back to putting from the stand without a reverse at the end of the day.

VOICE: Does the shot fall directly out in front of him or to his right or to his left?

MR. DOHERTY: I can answer that this way. Every good put doesn't land more than a foot either side of center line. We were speaking of strength a while back. For whatever it's worth, we were down in Illinois last week and Dr. Cureton was taking some strength tests on Charlie. Certainly his fingers are not unusually strong. On a little hand dynamometer that Dr. Cureton has there, just playing around I could do over 150 and Fonville did 156. Certainly my wrist and hands are not those of shot-putters at all. Almost any shot-putter, in my experience, can do over 160 with it.

VOICE: Did he try them on a leg dynamometer?

MR. DOHERTY: No, he didn't. I wouldn't take any chances on that. (Slide) Here is one that shows an awkward position. But it's an interesting picture as it related to the problem of fouling. We have certain tricks at Michigan that we think are pretty good for preventing a man from fouling, but Fonville hasn't paid attention to any of them. He simply lands against that right leg--see how straight it is there--he drives hard against it and then usually bounces right back in the center of the circle. From the position you see him there, he'll hop back toward the center of the circle. It's something he just acquired himself, naturally, without coaching. But very effective. He doesn't foul--it's not usual for him to foul one out of seven times. That's all of the pictures.

VOICE: As shown in this picture, does he usually go into this position?

MR. DOHERTY: Well, I was surprised when I saw that left hand up there where it is; but beyond that, I'd say yes, that he did. See, the shot probably has landed by this time. He comes straight back into the center of the circle. There's no movement off the straight line at all, from the beginning to the end.

PRES. KELLY: Thanks very much, Ken. These are very wonderful slides. Do any of you people have any more questions on the shot? If not, I think we'll adjourn for the afternoon. Some of us may want to go up and work out.

VOICE: Brownie, (Lauren Brown, NCTCA Sec. Treas.), can you get together with Ken Doherty to get use of some of these slides of Fonville for our report?

LAUREN BROWN (Michigan State): While I was watching these slides I thought of the possibility of that. However, reproduction of photographic material into printed form is pretty costly. There may be some way we can do that. I believe it would be a mighty profitable thing to all the coaches to have pictures of Fonville. Don't you think, Ken, that some of the pictures might be collected which show outstanding examples of the process of putting the shot?

MR. DOHERTY: I would think so.

MR. BROWN: I wouldn't be surprised if we could work it. If we get enough memberships, I know we can because membership is one of the things that determines our publication policy.

PRES. KELLY: I have just called up here, Jack Griffith, whom all of you know as the editor of the Athletic Journal. I know Jack published pictures of Gordien and I think he has some very fine pictures of Fonville and he's been very, very good about getting those to anyone who hasn't had them. Jack can tell you just what he may be prepared to do in the way of pictures. Jack Griffith.

JACK GRIFFITH: I was just going to tell Ken that his article would be a little more clear if we had some pictures of Fonville made from those slides. And we'll have those all made into cuts so, Brownie, if you want to use them in the report of

this discussion, you are welcome to have them. And, incidentally, any of the cuts that we have used, anyone who wants them can have them as we have no further use for them.

MR. BROWN: John, do you also have cuts of Gordien and Fitch?

MR. GRIFFITH: Yes. Sixteen pictures in sequence.

MR. BROWN: Fine. That will solve our problem right there.

VOICE: I'd like to suggest that with this offer of these cuts of men in action, if they could be turned over to Brownie for the NCTCA, it would be an excellent opportunity to add them to the report.

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MORNING SESSION

June 18, 1948

LAUREN BROWN: In the absence of President Kelly, the meeting will be conducted under the chairmanship of our Vice President, Flint Hanner. Gentlemen, Flint Hanner of Fresno State.

MR. HANNER: We will open the clinic today with movies. Karl Schlademan (Michigan State) has brought a reel of movies of the 1936 Olympics; and as soon as the operator is ready, we'll have those.

(Showing of 1936 Olympic Movies)

MR. HANNER: Woody Wilson (University of California at Davis) has some movies of the 1947 N.C.A.A. in color and also some from Stanford in 1941 on Harris (Archie Harris, Indiana) in the discus, I believe he has Fonville and others from last year's meet. I'll let him explain the picture as he goes along. Mr. Wilson.

WOODY WILSON: I've brought these along to show to some of the boys I photographed, and didn't bring them along especially to show to anyone else. However, I was interested in taking pictures of Gordien. And California had a discus thrower there, Dick Millington, who I knew was coming to my place this year so I was interested in getting some shots of him. So if you see a lot of Gordien and Millington, you'll know the reason why. The black and white film, I just took shots at random at Stanford. There is a picture in there of Harris when he broke the N.C.A.A. discus record at that time.

(Showing of Wilson's film)

MR. HANNER: Thanks very much, Karl Schlademan and Woody Wilson, for showing us these movies. We will have to move along quite rapidly as we have a late start. Jim Kelly cannot be here this morning because he must go over to the field and see that everything is in order for this afternoon. We have many things to do and we will try to get you out of here as early as possible because I know many of you have boys in the meet. We will have a panel discussion this morning lead by "Chick" Werner of Penn State on distance runs and Percy Beard of Florida on the hurdles. If those two

gentlemen will come forward, I would like to introduce them to you. I might say that while this discussion is going on we have a nominating committee for officers for next year composed of George Rider, Chairman; Ward Haylett; Clyde Littlefield; and Grant Swan. If you gentlemen will meet during this panel so you can make a report at the end of the meeting, we will appreciate it. We will first have Percy Beard who will lead the discussion on hurdles.

HURDLES

PERCY BEARD: I think I should be asking questions of somebody else instead of trying to lead a discussion on this myself. I'll make the observation that I'm glad I did my running when I did instead of now. I don't believe I could qualify for the finals in the meet this afternoon.

There are one or two points that I might discuss at this time. One was brought to my mind by the picture that you have just seen, Spec Towns winning the Olympics of 1936. There are a few remarks I'll make on the arm action that he was using. That's a so-called double-arm action, first used, I believe, by Bob Simpson, of Missouri, in 1915. I don't know how it was developed or the reasons behind it, but it does offer some advantage and I will pass them on to you for what they are worth. Of course, it's an unnatural action to start with and it isn't too easy to learn and it doesn't fit all boys. The approach to the hurdle, involves a little extra action in the take off. In order to get both arms out in front at the same time, which is unnatural, of course, one of them has to do something out of the ordinary. This is the short arm, or arm on same side of body as the lead leg. In coming up to the hurdle on your last stride, it goes out, stays there, and waits for the other one to come up with it. They are both extended forward over the hurdle at the same time. The advantage that it gives the hurdler, as I see it, comes in the backward simultaneous sweep of both arms at the same time. The weight of those arms sweeping back has a tendency to pull the hurdler forward, over and on to the ground more quickly than he ordinarily would, and of getting him away into a good running stride. Of course, after that action takes place the hurdler has a problem of getting his arms back into running action. This is done by a very quick recovery of the short arm (which is the left one in this case) which, in one motion whips back and forward and gets in this position ready for the running stride. As I say, it doesn't fit all boys but those who take to it, I think, will be helped.

The only other point I might touch on, which I think is very important is the action of the back leg. I think one of the most common faults in hurdlers is the rushing through of the back leg too quick. Of course, it comes through very fast when it comes through, but a great many of them start too soon. As far as I have been able to tell, they either do it naturally or they don't do it and if they don't do it, they never learn how. My own idea is that in the position of the body immediately on top of the hurdle I like to see the back knee well back of the top bar. One of the most common faults, as I see it, is to have the knee in advance of the top bar in that position, which means that the legs are not coordinated. In leaving the ground, the back leg has to trail until the front leg is in position to drive down and then they act together at the same time. If this back leg comes through too soon then the advantage of the scissors action is lost. If they don't act against each other, they are not balanced and then you have an unnatural action. The quickest way to detect this is when you see a boy whipping his back leg over real quick and getting a stone bruise on his heel. I think if there is one fundamental in hurdling more

important than anything else, I believe that's it. The boys that I have seen either have that as a natural aptitude, you might say, or they don't. I've never seen boys who didn't have it who could learn it. I don't have anything else to discuss. If there are any questions I could answer, I would be glad to do it.

MR. HANNER: Thanks, Percy. We next have 'Chick' Werner from Penn State who turned out several very fine distance runners and I think he must have some secret. I don't know if he will give us any of it, but he has some pretty good boys in today's meet and he has had some good ones in the past. Chick Werner, it's all yours.

CHICK WERNER (Penn State): I would like to assure you that there are no secrets about the thing. Once in a while we happen to run into a distance runner and it's the same with you fellows. Just about the time you think you're a distance coach why you get lost some place and you become a javelin coach for a while. I would say, that the thing we probably ought to keep in mind, relative to distance running, is that it is a proposition of dispensing with fatigue. We should recognize that there is a great deal of fatigue in distance running and go about the entire matter so that this fatigue is eliminated or at least reduced to a minimum. There are certain basic fundamentals that are almost like axioms in mathematics. They just are there, they are infallible. One of them is that the least fatiguing way to run a distance race is at an even pace. That probably is the most basic thing in distance running. The opposite is also true and should be recognized that the most fatiguing way to run is at an uneven pace, that is, a pace that is intermittently fast and slow or vice versa. I think that throughout the world those runners who try to run at an even pace, (we'll say for a mile, just to have a distance), have found when they try to run at an even pace it seems to work out that the first quarter is slightly faster than any of the others and that the final quarter is the next fastest and the third quarter is the slowest. Yet when you approach championship calibre and world's record performances, the differences in those four are still at a minimum and I believe that the Finns and Swedes and Norwegians and the best runners in the world, recognizing the fact that the third quarter is the slowest, try to punish themselves to get over that hump.

There are many other things connected with distance running. It's very important to warm up. Here in this country, I believe, we warm up perhaps more than they do in any other country. Some of you may recall the Princeton Meets when Lovelock and Wooderson got up from sitting under an umbrella and just walked over to the track and started out to run the 1500 m. or the mile. I believe that our boys Cunningham, and Fenske and MacMitchel and all the rest of them almost wear us out watching them warm up. I recall a distance runner I had once, a cross country boy named Billy Smith. Prior to a five mile run in the IC 4 A meet he insisted upon running the freshman course which was three miles. And he ran just about as fast as the freshmen did in the championship race and that was, in his mind, the proper way to warm up. I believe that we as coaches should go along with the boys because they are the ones who can tell when they are warmed up. The way they tell when they are properly warmed up is that they are oiled and greased and ready to go. They're loose. There is no stiffness. Breathing is no factor. I mean, great distance runners have no problem about getting out of breath as you and I do when we go around the block or up the stairs. All their organs are working in unison; there is no distress whatsoever. If they are properly conditioned, they are strong legged.

Now it becomes a problem for a coach to establish in this runner some type of running form which is efficient, so that he has no excess motion or wasted energy. His stride is not too long nor too short; he doesn't raise his knees too high; the arm action is not unnecessarily exaggerated, it's easy. The foreign runners run more erect than we do and if you'll talk to the authorities on that matter, you'll find they run erect because they think that the bone structure of the human body is so

arranged that the center of gravity and weight carried during a run is less fatiguing when they are erect. Ernie Hjertberg, in my opinion, is really our authority on foreign distance runners. Over here we seem to have a slight forward lean. It comes natural with us. Our boys seem to run a little bit more on the ball of the foot; the foreigners low, as we call it. They strike the ground with the outside of the heel and roll up on the toe.

Now all these little differences in form are simply opinions of this coach, that coach, this nation, that nation, to eliminate fatigue. I think one of the greatest things that I have learned about distance running came from a three or four hour conversation with Billy Hayes on a train, attending one of these meets some place, in which he told me he was beginning to think there was a factor in distance running called mental fatigue, wherein a boy got himself into a rut, a pace, that was not up to his ability yet he couldn't get out of it, he was going around - "clap, clap, clap, clap, clap," -- and if someone passed him, the poor guy was just there, there was nothing he could do about it. Billy's experiments along these lines were something of this nature, to put it briefly: by changing the pattern of whatever the boy was doing, just say the pattern of activity, this mental fatigue could be pushed aside. I said, "Well, what do you mean by changing the pattern?" He said, "Anything." "Scratch your head, blow your nose, shake your arms, change your stride." He says, "Have you ever noticed some of my boys when they're running along? Right in the middle of the race you'd think the tape was fifty yards away; they just go out in a dead sprint for fifty yards and everybody will say, 'What's going on here?' That fellow was changing the pattern of his activities. And for a brief period by changing that pattern you can eliminate this mental fatigue. A distance runner sometimes gets into that lethargy, you might call it."

So, he said, "Physical fatigue is a very rare thing, among runners. Physical fatigue is a type of fatigue which may take hours or even days to recover from. Mental fatigue is the thing that we are all experiencing and calling physical fatigue. Mental fatigue can be overcome within a matter of seconds, if you go about it properly." This is pretty far advanced as far as I am concerned. Billy is not here any more, but the very fact that he was a great producer of distance runners and a great man in research makes me sure about this. Some of you know about his experiments, in collaboration with Sid Robinson (Dr. Sid Robinson, Indiana University Medical School Physiologist). What that man knew would be great stuff if we could have it, but I'll just pass that much on to you. Now, in a panel of this nature, I don't know just how far we should go. Suppose I ask if someone has a question.

MR. SCHLADEMAN: Is the mile a middle distance run or a long distance run? How do you treat it?

MR. WERNER: You know the answer as well as I do. Why you ask me this, I don't know, Karl, with Dianetti and all. I'll just tell you fellows something. I had a dual meet with him out there. It's an annual custom. We were meeting each other regularly. And so, to put me in the proper frame of mind for the next year, he had a freshman mile tryout prior to our varsity race. And the first fellow came in in 4:16 and the other freshman was two yards back of him, but gaining on him. And then the other two freshmen were only under 4:23. And that's the same guy that asked me if "a distance run is a 1500 m. or what it is!" Karl, I would answer it this way. I believe the world's record for the 3/4 mile run is approximately 2:58. The Norwegians, Finns, and Swedes, and Americans who are attempting to run the four minute mile are equaling or breaking the record for the 3/4 mile on the way. If you follow me.

MR. SCHLADEMAN: Is it; therefore, a middle distance run?

MR. WERNER: Well, if we keep this up it's going to be the fifteen hundred meter dash (laughter). We will finally arrive at the point where the only distance run left is the marathon. Curt Stone (former Penn State distance man) went over on a tour last summer with Carl Olsen (Pitt) and a group of fine athletes. He came back and told me a great deal about these foreign runners. I have the utmost respect for them. They do a lot of things different than we do. The better runners are hidden until they are twenty-seven or twenty-eight years old and then they are exploited. They reach maturity. They don't go out and play golf and go fishing and all these luxury, soft-like things that we do here on Sunday and weekends. They will say "Let's run over to this other town, which is 30 miles away, and back. And, instead of taking the highway or a path, let's go through the woods and compass. Let's make it tough!" That's their idea of fun and, as a result, they've spoiled all our fun when we run them. Once when we were talking about what would be a good way to run a fine two mile run, Stone said he asked Strand (Leonard Strand, Sweden, holder of world's records) that question when he was over there. Strand said he likes to hit the first mile in 4:21 and the next one in 4:22. That gives you some idea of the way they even think. We don't dare breathe that kind of language here. But we are getting there. Is there another question? Well, apparently we have run out of questions. Thank you.

MR. HANNER: Thanks very much, Chick.

REPORT OF BUSINESS MEETING

MR. HANNER: We will have to rush along. I think we will have a report on some resolutions that were passed yesterday by the Advisory Committee. I'll have the Secretary read them and then the pleasure in what you have to do is all yours.

LAUREN BROWN: (Secretary, NCTCA) This is business of the National Collegiate Track Coaches Association. There aren't many members here but we want to read to you the recommendations of the Advisory Committee and present them to you for your choice in the matter of voting. First thing that was recommended was the fact that the Track Coaches of America, which some people call the IC 4 A Track Coaches, recognize that there is a need for a single rule book. A single, unified book of rules for track and field. I'll read the recommendation to you: 'The College Track Coaches of America recognize that there is a need for a single, unified book of rules for Track & Field. They have appointed a committee to look into the matter. They are extending an invitation to the National Collegiate Track Coaches Association to appoint a similar committee, to work in cooperation with them. It is the recommendation of the Advisory Committee that the NCTCA accept the invitation and that our new President be authorized to appoint a committee for this purpose.' This is the recommendation of the Advisory Committee, and should be acted upon here.

MR. HANNER: You have heard the recommendation. What is the will of the body? It has been moved by Carl Olson and seconded by Karl Schlademan that we go through with this recommendation of the Advisory Board. Any further discussion? All those in favor say aye. Opposed? The motion is carried. What is the next recommendation?

MR. BROWN: The second recommendation has to do with the subject of winter meetings. The National Collegiate Athletic Association has written a letter to Jim Kelly inviting our body to convene at the yearly winter meeting of the NCAA. The National Collegiate Track Coaches Association holds an associate membership in the NCAA. I'll read the recommendation as presented yesterday by the Advisory Committee:

'Recommended that the NCTCA notify the National Collegiate Athletic Associations' Secretary that our body is very much in favor of holding a coaches meeting in conjunction with the regular meetings of the NCAA'. Are there any comments on that?

MR. HANNER: Anyone care to speak? Are there any comments on the subject? Well, then, gentlemen, you have heard the resolution. What is the will of the body? Do you wish to discuss it before you vote? If not, a motion is in order. It has been moved by George Gauthier (Ohio Wesleyan) and seconded by Dave Holmes (Wayne) that the recommendation be adopted. Any further discussion? All those in favor signify by the usual sign. Opposed? Motion carried. All right, the next recommendation.

MR. BROWN: In the past reporting of these meetings, the reports have not been very satisfactory because so many times a man is called upon to come up to the platform and deliver a talk for which he has had no previous warning. He is not prepared in his own mind as to what he would say if the situation arose or anything else. Therefore, sometimes our reports are not really worth very much because they're pretty loose in their statements. And a lot of times we try to remedy that. For example, last year, on all reports that men gave at Salt Lake City, I sent a transcription of their reports to each speaker for correction, or amendment if they wanted to change. They all seemed to appreciate that action. It all came back in a much better form than it was when sent to them, but we felt that possibly if we set up a particular committee to handle this, sort of an Editorial Committee, of a couple of men, it might be a little more satisfactory. They could weed out some of the material before it was sent back to the speaker.

The Advisory Committee recommendation is this: 'It is recommended that the new President appoint a two man committee to work with the Secretary as an Editorial Committee to clarify and edit clinic presentations before printing or otherwise reproducing them for distribution. It is the intention of the Committee to continue the recently established policy of submitting these reports prior to final publication to the individuals responsible for their original presentation before our clinic.' This recommendation was suggested by Ken Doherty, based in particular on a couple of talks on the shot-put last year. Some of the material was pretty loosely prepared and not really through any fault of the individual. One man was supposed to have given a talk on the 36 pound weight and when he was called up to the table, why, they popped the shot-put on him. And he said he hadn't handled the shot-put on his team for about 4 or 5 years because he had an assistant working on the shot. This wasn't at all fair to the speaker, but nobody seemed to want to hear about the 36 pound weight. Now that's just one of the articles. There are two or three others in there, all in the same class. I tell you this so that you may know what that recommendation is all about.

MR. HANNER: All right, gentlemen, you have heard the recommendation. What's the will of the body? It has been moved by Karl Schlademan and seconded by Harry Adams (Montana) that the recommendation be adopted. Any further discussion? All those in favor signify by the usual sign. Opposed? Motion carried and so ordered. Are there any more?

MR. BROWN: There is one more recommendation. Our Advisory Committee really was busy yesterday. 'It is recommended that the personnel of the present Membership Committee be maintained for at least one more year in order that the Committee may carry on its work of increasing membership in the Association.' It was thought that if the Membership Committee was changed, it would become weakened by the change because the present Committee has just begun to be able to function

MR. HANNER: You have heard the recommendation. What's the will of the body? Any discussion? Any motion? It has been moved by Chick Werner and seconded by Carl Olson that we adopt the recommendation. Any further discussion? All those in favor signify by the usual sign. Opposed? Motion carried and so ordered. Is there any more new business to come up beside a report from the Nomination Committee?

MR. BROWN: No, there isn't.

MR. HANNER: May we have the report of the Nominating Committee at this time?

GEORGE RIDER: Mr. Chairman, your Nominating Committee met and have the following slate to recommend. We are nominating Flint Hanner of Fresno State for President, moving him up from Vice-President. For Vice-President, Clyde Littlefield of the University of Texas. For Secretary-Treasurer, Lauren Brown of Michigan State College. Then we are nominating two men to serve on the Advisory Committee since two of them retired. The Advisory Committee is set up so that two new names are added each year and two leave. And in place of the two men that are being retired this year, Dean Cromwell of the University of Southern California and Ed Wier of the University of Nebraska, we are nominating E. C. "Hec" Edmundson of the University of Washington and Frank Potts of the University of Colorado. I move the election of these nominees.

MR. HANNER: Mr. Rider, I think you had better take charge as temporary chairman for the moment.

MR. RIDER: Are there any other nominations from the floor? What's your pleasure?

GEORGE GAUTHIER: I move that the report of the Nominating Committee be adopted and unanimous ballot be cast.

MR. RIDER: You've heard the motion. Is there a second?

WOODY WILSON: Second.

MR. RIDER: Motion seconded that the slate be elected and the Secretary be instructed to cast a ballot for the slate. Any debate? If not, all in favor say aye. Opposed the same. Motion carried. Thank you.

MR. HANNER: Gentlemen, I appreciate the honor that you have given me and I will do my best during the next year to conduct everything properly, at least everything I possibly can. We will try to put on an excellent winter meeting for you out at San Francisco. And again I thank you and I appreciate all the help that the others have given us today on this impromptu meeting which was caused, really, by the weather man. Jim Kelly had to go over and do a lot of work so we were somewhat disrupted.

There being no further new business, upon motion made by Frank Ryan and seconded by Ken Doherty the meeting was adjourned at 12:15 p.m.

Respectfully submitted,

Lauren P. Brown, Sec. Treas

The Membership Committee



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Chairman



Edgar C. Barker



Percy Beard



Emmett E. Brunson



Norris Dean



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